

CLAIMS*Sub A1*

1. An image processing device comprising:
image processing means for executing image processing to
5 move an object;
display means for displaying an image based on this image
processing;
contact input means that is movably provided and is brought
into contact with said display means by the operation of a player,
10 and that generates a signal for computing the contact position
when contacting said display means;
position computing means for computing said contact
position based on signals from the contact input means; and
determination means for determining whether or not a
15 prescribed relationship is established between said contact
position and said object display position based on the computed
results, wherein said image processing means provides prescribed
image processing for said object when it has been determined by
the determination means that a prescribed relationship has been
20 established.

2. An image processing device as defined in Claim 1,
wherein said contact input means comprises photoreceiver means
for obtaining the brightness data of said display means, and said
25 position computing means computes said contact position by
comparing the photoreception timing of said brightness data and
the display timing of said display means.

3. An image processing device as defined in Claim 2,

wherein said display means enhances the image brightness when said contact input means is brought into contact with said display means.

5 4. An image processing device as defined in Claim 1,
wherein said contact input means comprises switch means for
generating contact signals indicating contact with said display
means, and said position computing means begins processing based
on the contact signals of said switch means.

10

5. An image processing device comprising:
image processing means for executing image processing to
move an object;
display means for displaying an image based on this image
processing;
contact means that is movably provided and is brought into
contact with said display means by the operation of a player;
input means that is located near said display means and
generates a signal for computing the contact position when said
contact means is brought into contact with said display means;
position computing means for computing said contact
position based on signals from the input means; and
determination means for determining whether or not a
prescribed relationship is established between said contact
position and said object display position based on the computed
results, wherein said image processing means provides prescribed
image processing for said object when it has been determined by
the determination means that a prescribed relationship has been
established.

6. An image processing device as defined in Claim 5,
wherein said input means comprises a plurality of detectors for
sensing sound or vibration when said contact means is brought
5 into contact, and said position computing means computes said
contact position by comparing the detection timing of said
plurality of detectors.

7. An image processing device as defined in Claim 5,
10 wherein said contact means comprises switch means for generating
contact signals indicating contact with said display means, and
said position computing means begins processing based on the
contact signals of said switch means.

15 8. An image processing device as defined in any of Claims
1 through 7, wherein said determination means determines that
said prescribed relationship has been established when said
contact position is included within a predetermined range for
said object.

20

9. A game device, comprising:
an image processing device as defined in any of Claims 1
through 7; and

25 point calculating means for awarding points when it has been
determined by said determination means that said prescribed
relationship has been established.

10. A game device as defined in Claim 9, wherein the display
surface of said display means is inclined so that the angle between

the perpendicular direction and the normal line of the display surface ranges from 3 to 17 degrees.

11. A game device as defined in Claim 9, wherein said
5 display means comprises a protective cover that covers the display surface on which the images are displayed.

12. Contact input means that is movably provided and is brought into contact with a display means by the operation of
10 a player, comprising:

switch means for generating contact signals during contact;
and

photoreceiver means for obtaining the brightness data of said display means.

15 13. Contact input means as defined in Claim 12, wherein said switch means is a vibration switch.

14. Contact input means as defined in Claim 12, wherein
20 said photoreceiver means comprises optical fiber for receiving the brightness data of said display means during contact, and a photodetector component for detecting the output of the optic fiber.

25 15. Contact input means as defined in Claim 12, comprising a buffer for softening the impact when in contact with said display means.

16. A method for image processing, comprising:

an image processing step for executing image processing to move an object;

a display step for displaying an image based on this image processing;

5 a contact input step involving contact near the display means by the operation of a player, and the generation of a signal for computing the contact position when contact has been made with said display means;

10 a position computing step for computing said contact position based on signals in the contact input step; and

15 a determination step for determining whether or not a prescribed relationship is established between said contact position and said object display position based on the computed results, wherein said image processing step provides prescribed image processing for said object when it has been determined in the determination means that a prescribed relationship has been established.

17. A method for image processing, comprising:

20 an image processing step for executing image processing to move an object;

a display step for displaying an image based on this image processing;

25 a contact step involving contact near the display means by the operation of a player;

an input step for generating a signal to compute the contact position when contact has been made with said display means in said contact step;

a position computing step for computing said contact

position based on signals in the input step; and
a determination step for determining whether or not a
prescribed relationship is established between said contact
position and said object display position based on the computed
5 results, wherein said image processing step provides prescribed
image processing for said object when it has been determined in
the determination means that a prescribed relationship has been
established.

10 18. A recording medium on which is recorded the procedure
by which a method for image processing as defined in Claim 16
or 17 is executed by a processing device.

ADD Ag